

ABSTRACT OF THE DISCLOSURE

A single crystal of quartz thin film and a production method therefor are provided. A method for producing a quartz epitaxial thin film comprises the steps of vaporizing a silicon alkoxide as a silicon source under atmospheric pressure to introduce the silicon alkoxide to a substrate with hydrogen chloride as a reaction promoter, and reacting ethyl silicate with oxygen to deposit a quartz on the substrate. The single crystal of quartz thin film has excellent crystallinity, and optical properties.